

Appendix C

RUSLE Evaluation Information

RUSLE Parameters and Calculations

Location	Soil Texture Group	Ambient					Construction	Construction Site Loadings Without BMPs (tons/ac/yr)	Increased Load Over Ambient (tons/ac/yr)	
		K	R	LS	C	P				
EcoRegion 1, Indicator City Denver Co										
3% slope, 200' length	Sand	0.05	36	0.485	0.2144	1	0.19	0.8408	0.73	0.55
3% slope, 200' length	Sandy Loam	0.27	36	0.485	0.2144	1	1.01	0.8408	3.96	2.95
3% slope, 200' length	Loam	0.38	36	0.485	0.2144	1	1.42	0.8408	5.58	4.16
7% slope, 140' length	Sand	0.05	36	1.06	0.2144	1	0.41	0.8408	1.60	1.20
7% slope, 140' length	Sandy Loam	0.27	36	1.06	0.2144	1	2.21	0.8408	8.66	6.45
7% slope, 140' length	Loam	0.38	36	1.06	0.2144	1	3.11	0.8408	12.19	9.08
12% slope, 100' length	Sand	0.05	36	1.79	0.2144	1	0.69	0.8408	2.71	2.02
12% slope, 100' length	Sandy Loam	0.27	36	1.79	0.2144	1	3.73	0.8408	14.63	10.90
12% slope, 100' length	Loam	0.38	36	1.79	0.2144	1	5.25	0.8408	20.59	15.34
EcoRegion 2, Indicator City Salt Lake City Ut										
3% slope, 200' length	Sand	0.05	18	0.485	0.16	1	0.07	0.8271	0.36	0.29
3% slope, 200' length	Sandy Loam	0.27	18	0.485	0.16	1	0.38	0.8271	1.95	1.57
3% slope, 200' length	Loam	0.38	18	0.485	0.16	1	0.53	0.8271	2.74	2.21
7% slope, 140' length	Sand	0.05	18	1.06	0.16	1	0.15	0.8271	0.79	0.64
7% slope, 140' length	Sandy Loam	0.27	18	1.06	0.16	1	0.82	0.8271	4.26	3.44
7% slope, 140' length	Loam	0.38	18	1.06	0.16	1	1.16	0.8271	6.00	4.84
12% slope, 100' length	Sand	0.05	18	1.79	0.16	1	0.26	0.8271	1.33	1.07
12% slope, 100' length	Sandy Loam	0.27	18	1.79	0.16	1	1.39	0.8271	7.20	5.80
12% slope, 100' length	Loam	0.38	18	1.79	0.16	1	1.96	0.8271	10.13	8.17

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Location	Soil Texture Group	Ambient						Construction C	Construction Site Loadings Without BMPs (tons/ac/yr)	Increased Load Over Ambient (tons/ac/yr)
		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 3, Indicator City Austin, Tx										
3% slope, 200' length	Sandy Loam	0.27	256.5	0.485	0.3611	1	12.13	0.8771	29.46	17.33
3% slope, 200' length	Loam	0.38	256.5	0.485	0.3611	1	17.07	0.8771	41.46	24.39
3% slope, 200' length	N/A									
7% slope, 140' length	Sandy Loam	0.27	256.5	1.06	0.3611	1	26.51	0.8771	64.39	37.88
7% slope, 140' length	Loam	0.38	256.5	1.06	0.3611	1	37.31	0.8771	90.62	53.31
7% slope, 140' length	N/A									
12% slope, 100' length	Sandy Loam	0.27	256.5	1.79	0.3611	1	44.76	0.8771	108.73	63.97
12% slope, 100' length	Loam	0.38	256.5	1.79	0.3611	1	63.00	0.8771	153.03	90.03
12% slope, 100' length	N/A									
EcoRegion 4, Indicator City Atlanta, Ga										
3% slope, 200' length	Loamy Sand	0.12	265.5	0.485	0.3403	1	5.26	0.8978	13.87	8.61
3% slope, 200' length	Sandy Loam	0.27	265.5	0.485	0.3403	1	11.83	0.8978	31.21	19.38
3% slope, 200' length	N/A									
7% slope, 140' length	Loamy Sand	0.12	265.5	1.06	0.3403	1	11.49	0.8978	30.32	18.83
7% slope, 140' length	Sandy Loam	0.27	265.5	1.06	0.3403	1	25.86	0.8978	68.22	42.36
7% slope, 140' length	N/A									
12% slope, 100' length	Loamy Sand	0.12	265.5	1.79	0.3403	1	19.41	0.8978	51.20	31.79
12% slope, 100' length	Sandy Loam	0.27	265.5	1.79	0.3403	1	43.67	0.8978	115.20	71.54
12% slope, 100' length	N/A									

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 5, Indicator City Charleston, SC										
3% slope, 200' length	Sand	0.05	360	0.485	0.359	1	3.13	0.9168	8.00	4.87
3% slope, 200' length	Sandy Loam	0.27	360	0.485	0.359	1	16.92	0.9168	43.22	26.30
3% slope, 200' length	Loamy Sand	0.12	360	0.485	0.359	1	7.52	0.9168	19.21	11.69
7% slope, 140' length	Sand	0.05	360	1.06	0.359	1	6.85	0.9168	17.49	10.64
7% slope, 140' length	Sandy Loam	0.27	360	1.06	0.359	1	36.99	0.9168	94.46	57.47
7% slope, 140' length	Loamy Sand	0.12	360	1.06	0.359	1	16.44	0.9168	41.98	25.54
12% slope, 100' length	Sand	0.05	360	1.79	0.359	1	11.57	0.9168	29.54	17.97
12% slope, 100' length	Sandy Loam	0.27	360	1.79	0.359	1	62.46	0.9168	159.51	97.05
12% slope, 100' length	Loamy Sand	0.12	360	1.79	0.359	1	27.76	0.9168	70.89	43.13
EcoRegion 6, Indicator City Jacksonville, Fl										
3% slope, 200' length	Sand	0.05	450	0.485	0.359	1	3.92	0.9168	10.00	6.09
3% slope, 200' length	Loamy Sand	0.12	450	0.485	0.359	1	9.40	0.9168	24.01	14.61
3% slope, 200' length	Sandy Loam	0.27	450	0.485	0.359	1	21.16	0.9168	54.02	32.87
7% slope, 140' length	Sand	0.05	450	1.06	0.359	1	8.56	0.9168	21.87	13.30
7% slope, 140' length	Loamy Sand	0.12	450	1.06	0.359	1	20.55	0.9168	52.48	31.93
7% slope, 140' length	Sandy Loam	0.27	450	1.06	0.359	1	46.24	0.9168	118.07	71.84
12% slope, 100' length	Sand	0.05	450	1.79	0.359	1	14.46	0.9168	36.92	22.47
12% slope, 100' length	Loamy Sand	0.12	450	1.79	0.359	1	34.70	0.9168	88.62	53.92
12% slope, 100' length	Sandy Loam	0.27	450	1.79	0.359	1	78.08	0.9168	199.39	121.31

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 7, Indicator Ci Miami, Flty										
3% slope, 200' length	Sand	0.05	600	0.485	0.359	1	5.22	0.9168	13.34	8.12
3% slope, 200' length	N/A									
3% slope, 200' length	N/A									
7% slope, 140' length	Sand	0.05	600	1.06	0.359	1	11.42	0.9168	29.15	17.74
7% slope, 140' length	N/A									
7% slope, 140' length	N/A									
12% slope, 100' length	Sand	0.05	600	1.79	0.359	1	19.28	0.9168	49.23	29.95
12% slope, 100' length	N/A									
12% slope, 100' length	N/A									
EcoRegion 8, Indicator Ci Albany, NY										
3% slope, 200' length	Sandy Loam	0.27	90	0.485	0.2828	1	3.33	0.8784	10.35	7.02
3% slope, 200' length	Silt Loam	0.48	90	0.485	0.2828	1	5.93	0.8784	18.40	12.48
3% slope, 200' length	N/A									
7% slope, 140' length	Sandy Loam	0.27	90	1.06	0.2828	1	7.28	0.8784	22.63	15.34
7% slope, 140' length	Silt Loam	0.48	90	1.06	0.2828	1	12.95	0.8784	40.22	27.27
7% slope, 140' length	N/A									
12% slope, 100' length	Sandy Loam	0.27	90	1.79	0.2828	1	12.30	0.8784	38.21	25.91
12% slope, 100' length	Silt Loam	0.48	90	1.79	0.2828	1	21.87	0.8784	67.92	46.06
12% slope, 100' length	N/A									

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 9, Indicator City Pittsburgh, Pa										
3% slope, 200' length	Silt Loam	0.48	139.5	0.485	0.2828	1	9.18	0.8784	28.53	19.34
3% slope, 200' length	Sandy Loam	0.27	139.5	0.485	0.2828	1	5.17	0.8784	16.05	10.88
3% slope, 200' length	Loam	0.38	139.5	0.485	0.2828	1	7.27	0.8784	22.58	15.31
7% slope, 140' length	Silt Loam	0.48	139.5	1.06	0.2828	1	20.07	0.8784	62.35	42.27
7% slope, 140' length	Sandy Loam	0.27	139.5	1.06	0.2828	1	11.29	0.8784	35.07	23.78
7% slope, 140' length	Loam	0.38	139.5	1.06	0.2828	1	15.89	0.8784	49.36	33.47
12% slope, 100' length	Silt Loam	0.48	139.5	1.79	0.2828	1	33.90	0.8784	105.28	71.39
12% slope, 100' length	Sandy Loam	0.27	139.5	1.79	0.2828	1	19.07	0.8784	59.22	40.16
12% slope, 100' length	Loam	0.38	139.5	1.79	0.2828	1	26.83	0.8784	83.35	56.52
EcoRegion 10, Indicator City St. Paul, Mn										
3% slope, 200' length	Silt Loam	0.48	103.5	0.485	0.225	1	5.42	0.8729	21.03	15.61
3% slope, 200' length	Sandy Loam	0.27	103.5	0.485	0.225	1	3.05	0.8729	11.83	8.78
3% slope, 200' length	Loam	0.38	103.5	0.485	0.225	1	4.29	0.8729	16.65	12.36
7% slope, 140' length	Silt Loam	0.48	103.5	1.06	0.225	1	11.85	0.8729	45.97	34.12
7% slope, 140' length	Sandy Loam	0.27	103.5	1.06	0.225	1	6.66	0.8729	25.86	19.19
7% slope, 140' length	Loam	0.38	103.5	1.06	0.225	1	9.38	0.8729	36.39	27.01
12% slope, 100' length	Silt Loam	0.48	103.5	1.79	0.225	1	20.01	0.8729	77.62	57.62
12% slope, 100' length	Sandy Loam	0.27	103.5	1.79	0.225	1	11.25	0.8729	43.66	32.41
12% slope, 100' length	Loam	0.38	103.5	1.79	0.225	1	15.84	0.8729	61.45	45.61

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 11, Indicator City Houston, Tx										
3% slope, 200' length	Silt Loam	0.48	427.5	0.485	0.3611	1	35.94	0.8771	87.29	51.35
3% slope, 200' length	Sandy Loam	0.27	427.5	0.485	0.3611	1	20.21	0.8771	49.10	28.89
3% slope, 200' length	Clay	0.17	427.5	0.485	0.3611	1	12.73	0.8771	30.92	18.19
7% slope, 140' length	Silt Loam	0.48	427.5	1.06	0.3611	1	78.54	0.8771	190.78	112.24
7% slope, 140' length	Sandy Loam	0.27	427.5	1.06	0.3611	1	44.18	0.8771	107.31	63.13
7% slope, 140' length	Clay	0.17	427.5	1.06	0.3611	1	27.82	0.8771	67.57	39.75
12% slope, 100' length	Silt Loam	0.48	427.5	1.79	0.3611	1	132.63	0.8771	322.17	189.53
12% slope, 100' length	Sandy Loam	0.27	427.5	1.79	0.3611	1	74.61	0.8771	181.22	106.61
12% slope, 100' length	Clay	0.17	427.5	1.79	0.3611	1	46.97	0.8771	114.10	67.13
EcoRegion 12 Kansas City,										
3% slope, 200' length	Silt Loam	0.48	175.5	0.485	0.3087	1	12.61	0.8847	36.15	23.53
3% slope, 200' length	Sandy Loam	0.27	175.5	0.485	0.3087	1	7.09	0.8847	20.33	13.24
3% slope, 200' length	Loam	0.38	175.5	0.485	0.3087	1	9.98	0.8847	28.62	18.63
7% slope, 140' length	Silt Loam	0.48	175.5	1.06	0.3087	1	27.57	0.8847	79.00	51.43
7% slope, 140' length	Sandy Loam	0.27	175.5	1.06	0.3087	1	15.51	0.8847	44.44	28.93
7% slope, 140' length	Loam	0.38	175.5	1.06	0.3087	1	21.82	0.8847	62.54	40.72
12% slope, 100' length	Silt Loam	0.48	175.5	1.79	0.3087	1	46.55	0.8847	133.40	86.85
12% slope, 100' length	Sandy Loam	0.27	175.5	1.79	0.3087	1	26.18	0.8847	75.04	48.86
12% slope, 100' length	Loam	0.38	175.5	1.79	0.3087	1	36.85	0.8847	105.61	68.76

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 13, Indicator City Rapid City, SD										
3% slope, 200' length	Silt Loam	0.48	40.5	0.485	0.2144	1	2.02	0.8408	7.93	5.91
3% slope, 200' length	Loam	0.38	40.5	0.485	0.2144	1	1.60	0.8408	6.28	4.68
3% slope, 200' length	N/A									
7% slope, 140' length	Silt Loam	0.48	40.5	1.06	0.2144	1	4.42	0.8408	17.33	12.91
7% slope, 140' length	Loam	0.38	40.5	1.06	0.2144	1	3.50	0.8408	13.72	10.22
7% slope, 140' length	N/A									
12% slope, 100' length	Silt Loam	0.48	40.5	1.79	0.2144	1	7.46	0.8408	29.26	21.80
12% slope, 100' length	Loam	0.38	40.5	1.79	0.2144	1	5.91	0.8408	23.16	17.26
12% slope, 100' length	N/A									
EcoRegion 14, Indicator City Boise, Id										
3% slope, 200' length	Sandy Loam	0.27	10.8	0.485	0.1434	1	0.20	0.8177	1.16	0.95
3% slope, 200' length	Loam	0.38	10.8	0.485	0.1434	1	0.29	0.8177	1.63	1.34
3% slope, 200' length	N/A									
7% slope, 140' length	Sandy Loam	0.27	10.8	1.06	0.1434	1	0.44	0.8177	2.53	2.08
7% slope, 140' length	Loam	0.38	10.8	1.06	0.1434	1	0.62	0.8177	3.56	2.93
7% slope, 140' length	N/A									
12% slope, 100' length	Sandy Loam	0.27	10.8	1.79	0.1434	1	0.75	0.8177	4.27	3.52
12% slope, 100' length	Loam	0.38	10.8	1.79	0.1434	1	1.05	0.8177	6.01	4.95
12% slope, 100' length	N/A									

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 15, Indicator City Eureka, Ca										
3% slope, 200' length	Silt Loam	0.48	85.5	0.485	0.2284	1	4.55	0.8643	17.20	12.66
3% slope, 200' length	Loam	0.38	85.5	0.485	0.2284	1	3.60	0.8643	13.62	10.02
3% slope, 200' length	N/A									
7% slope, 140' length	Silt Loam	0.48	85.5	1.06	0.2284	1	9.94	0.8643	37.60	27.66
7% slope, 140' length	Loam	0.38	85.5	1.06	0.2284	1	7.87	0.8643	29.77	21.90
7% slope, 140' length	N/A									
12% slope, 100' length	Silt Loam	0.48	85.5	1.79	0.2284	1	16.78	0.8643	63.49	46.71
12% slope, 100' length	Loam	0.38	85.5	1.79	0.2284	1	13.28	0.8643	50.27	36.98
12% slope, 100' length	N/A									
EcoRegion 16, Indicator City San Francisco, Ca										
3% slope, 200' length	Sandy Loam	0.27	40.5	0.485	0.2284	1	1.21	0.8643	4.58	3.37
3% slope, 200' length	Loam	0.38	40.5	0.485	0.2284	1	1.70	0.8643	6.45	4.75
3% slope, 200' length	N/A									
7% slope, 140' length	Sandy Loam	0.27	40.5	1.06	0.2284	1	2.65	0.8643	10.02	7.37
7% slope, 140' length	Loam	0.38	40.5	1.06	0.2284	1	3.73	0.8643	14.10	10.37
7% slope, 140' length	N/A									
12% slope, 100' length	Sandy Loam	0.27	40.5	1.79	0.2284	1	4.47	0.8643	16.92	12.45
12% slope, 100' length	Loam	0.38	40.5	1.79	0.2284	1	6.29	0.8643	23.81	17.52
12% slope, 100' length	N/A									

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 17, Indicator City Seattle, Wa										
3% slope, 200' length	Silt Loam	0.48	63	0.485	0.2284	1	3.35	0.8643	12.68	9.33
3% slope, 200' length	Loam	0.38	63	0.485	0.2284	1	2.65	0.8643	10.04	7.38
3% slope, 200' length	Silty Clay Loam	0.37	63	0.485	0.2284	1	2.58	0.8643	9.77	7.19
7% slope, 140' length	Silt Loam	0.48	63	1.06	0.2284	1	7.32	0.8643	27.70	20.38
7% slope, 140' length	Loam	0.38	63	1.06	0.2284	1	5.80	0.8643	21.93	16.14
7% slope, 140' length	Silty Clay Loam	0.37	63	1.06	0.2284	1	5.64	0.8643	21.36	15.71
12% slope, 100' length	Silt Loam	0.48	63	1.79	0.2284	1	12.36	0.8643	46.78	34.42
12% slope, 100' length	Loam	0.38	63	1.79	0.2284	1	9.79	0.8643	37.04	27.25
12% slope, 100' length	Silty Clay Loam	0.37	63	1.79	0.2284	1	9.53	0.8643	36.06	26.53
EcoRegion 18, Indicator City Highland, Wa										
3% slope, 200' length	Silt Loam	0.48	9	0.485	0.1434	1	0.30	0.8177	1.71	1.41
3% slope, 200' length	N/A									
3% slope, 200' length	N/A									
7% slope, 140' length	Silt Loam	0.48	9	1.06	0.1434	1	0.66	0.8177	3.74	3.09
7% slope, 140' length	N/A									
7% slope, 140' length	N/A									
12% slope, 100' length	Silt Loam	0.48	9	1.79	0.1434	1	1.11	0.8177	6.32	5.21
12% slope, 100' length	N/A									
12% slope, 100' length	N/A									

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		K	R	LS	C	P	Discharge Load (tons/ac/yr)			
EcoRegion 19, Indicator City Mount Hood, Wa										
3% slope, 200' length	Sandy Loam	0.27	45	0.485	0.2284	1	1.35	0.8643	5.09	3.75
3% slope, 200' length	Loam	0.38	45	0.485	0.2284	1	1.89	0.8643	7.17	5.27
3% slope, 200' length	Loamy sand	0.12	45	0.485	0.2284	1	0.60	0.8643	2.26	1.67
7% slope, 140' length	Sandy Loam	0.27	45	1.06	0.2284	1	2.94	0.8643	11.13	8.19
7% slope, 140' length	Loam	0.38	45	1.06	0.2284	1	4.14	0.8643	15.67	11.53
7% slope, 140' length	Loamy sand	0.12	45	1.06	0.2284	1	1.31	0.8643	4.95	3.64
12% slope, 100' length	Sandy Loam	0.27	45	1.79	0.2284	1	4.97	0.8643	18.80	13.83
12% slope, 100' length	Loam	0.38	45	1.79	0.2284	1	6.99	0.8643	26.46	19.46
12% slope, 100' length	Loamy sand	0.12	45	1.79	0.2284	1	2.21	0.8643	8.35	6.15